**Application No.: 10/580,154** 

## **AMENDMENTS TO THE CLAIMS:**

The claim listing below replaces all prior versions and listings of the claims in the application.

## **LISTING OF CLAIMS:**

1. (Currently Amended) An electric discharge machining method comprising the steps of:

setting a removal surface area (S);

setting a dimension of material to be removed (d);

setting a plurality of machining conditions;

obtaining a removal volume (V) corresponding to a volume of material to be removed from a workpiece <u>based on the removal surface area (S) and the dimension of material to be removed (d)</u>;

obtaining a removal volume rate (Vm) corresponding to the set <u>plurality of</u> machining conditions;

determining a machining time (T) based on the removal volume (V) and the removal volume rate (Vm);

starting electric discharge machining of the workpiece in accordance with the set plurality of machining conditions; and

completing electric discharge machining of the workpiece when the machining time (T) has elapsed from the start of electric discharge machining.

- 2. (Cancelled)
- 3. (Currently Amended) An electric discharge machining method comprising the steps of:

setting a removal surface area (S); setting a dimension of material to be removed (d); setting a plurality of machining conditions;

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obtaining a removal volume (V) corresponding to a volume of material to be removed from a workpiece <u>based on the removal surface area (S) and the dimension of material to be removed (d)</u>;

obtaining a removal volume per single discharge (Vp) corresponding to the set plurality of machining conditions;

determining a number of electric discharges (P) based on the removal volume (V) and the removal volume per single discharge (Vp);

starting electric discharge machining of the workpiece in accordance with the set plurality of machining conditions; and

completing electric discharge machining of the workpiece when the number of <u>electric</u> discharges (P) have been completed from the start of electric discharge machining.

## 4-6. (Canceled)